



Data Standards Program

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DMSO Data Standards Program

Data Standards are the third component of the M&S CTF:

- the formal vehicle for promulgation and enforcement
- a template for using standards to create, manage, and deliver data

Data Issue:

Standards Approach:

| | | |
|---------------|---|--|
| Recognition | → | Common Semantics and Syntax |
| Realization | → | Systems Architecture for Data |
| Repeatability | → | Data Creation Sequence Data Engineering Process |
| Reuse | → | Authoritative Data Sources Data Interchange Formats |

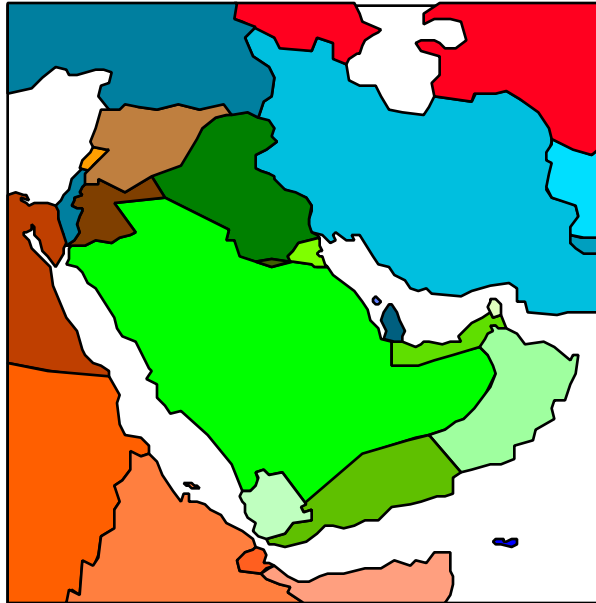


Data Standards Project Priorities

- **HLA FOM/SOM content standards and data interchange formats, with immediate focus on the IEEE-1278.1 PNP Reference FOM.**
- **JSIMS and JWARS related CMMS integration and interoperability.**
- **Scenario generation with Order of Battle instance data interchange**



Common Syntax and Semantics



CSS is the vehicle for:

- recognizing content
- repeatable construction

which enables re-use.

Order of Battle CSS:

- same meaning, different terms
 - CFDB country codes
 - MIDB alligiance
- same term, different meaning
- common task organization template



ENTITY-Based Abstractions

- **ENTITY** A distinguishable person, place, thing, or concept about which information is kept [2]. In particular, *ENTITY* includes the notions of person, organization, facility, feature, materiel, and plan defined in [5].
- **Concrete Examples**
 - **Person** Wing Commander, Pilot
 - **Organization** JFACC, Flight
 - **Facility** Airbase, Power Plant
 - **Feature** Road, River, Bridge
 - **Materiel** F15, AWACS, Sidewinder
 - **Plan** ATO
- **Abstraction Examples**
 - **Core C2** GCCS entity-relationship diagram
 - **JWSOL** JTF-ATD object classes

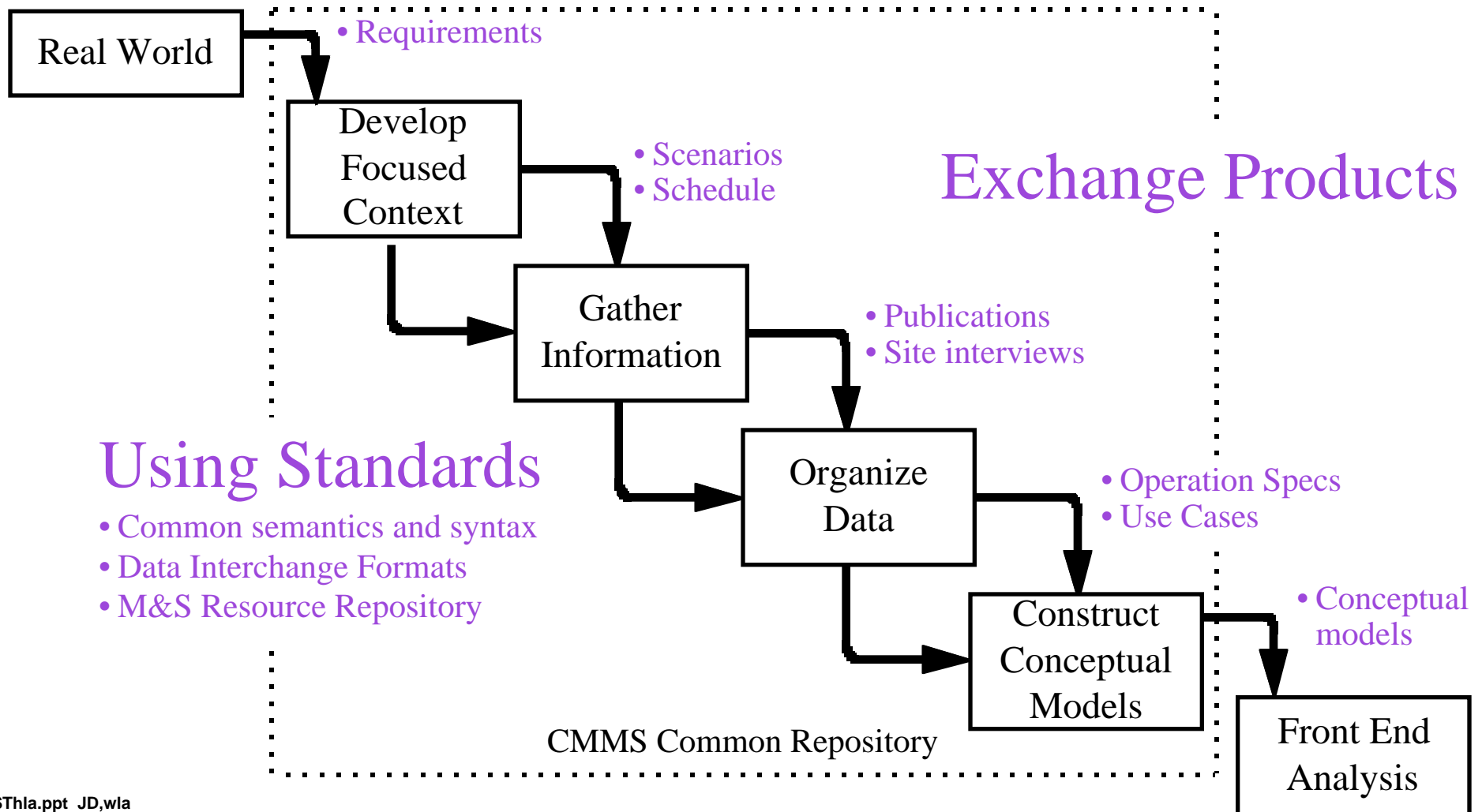


ACTION-Based Abstractions

- **ACTION** The alteration or transformation by natural force or human agency which produces a change in state or condition. ***ACTION = VERB [+ ENTITY]***
- **Concrete Examples**
 - **Physical Verbs** Move, Sense, Communicate, Engage, Replenish,...
 - **Cognitive Verbs** Develop, Monitor, Analyze, Supervise,...
 - **Capabilities**
 - Refuel Aircraft
 - Launch Missile
 - Detect Submarine
 - Generate ATO
- **Abstraction Examples**
 - **UJTL** Process-oriented operations templates
 - **CMMS Verb Syntax** Behavior-oriented C2 templates

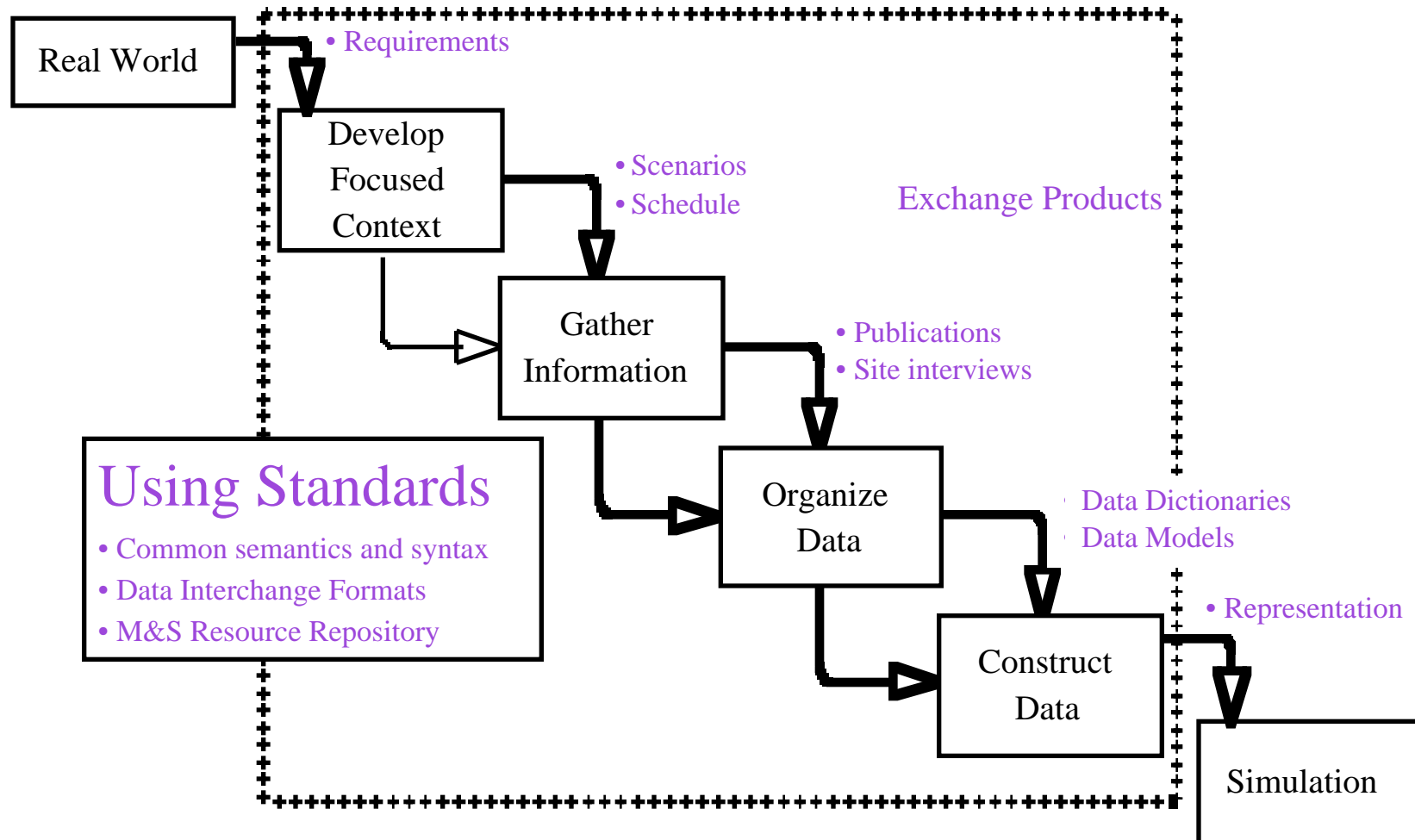


J²CMMS Development Strategy



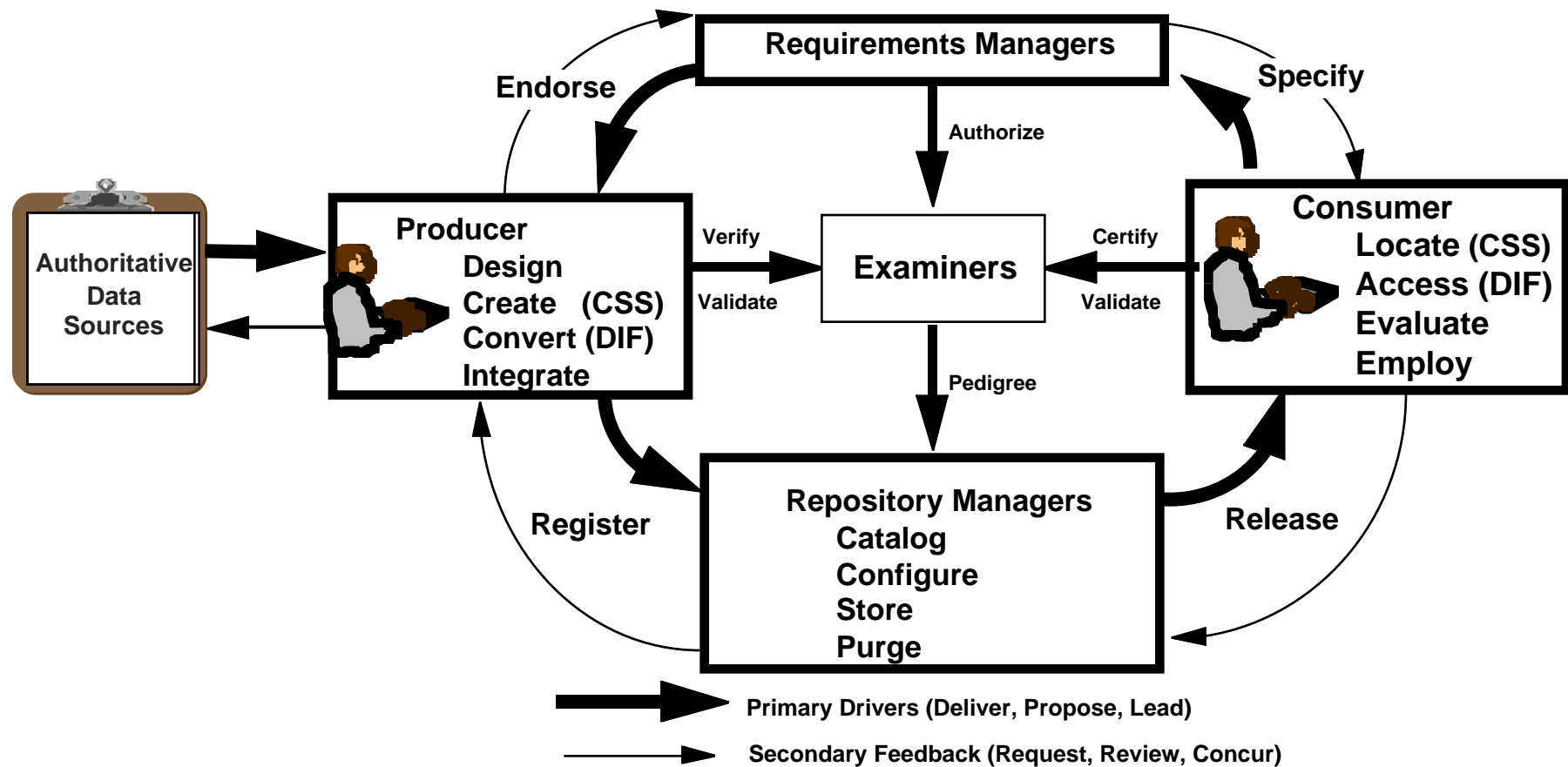


Data Creation Sequence



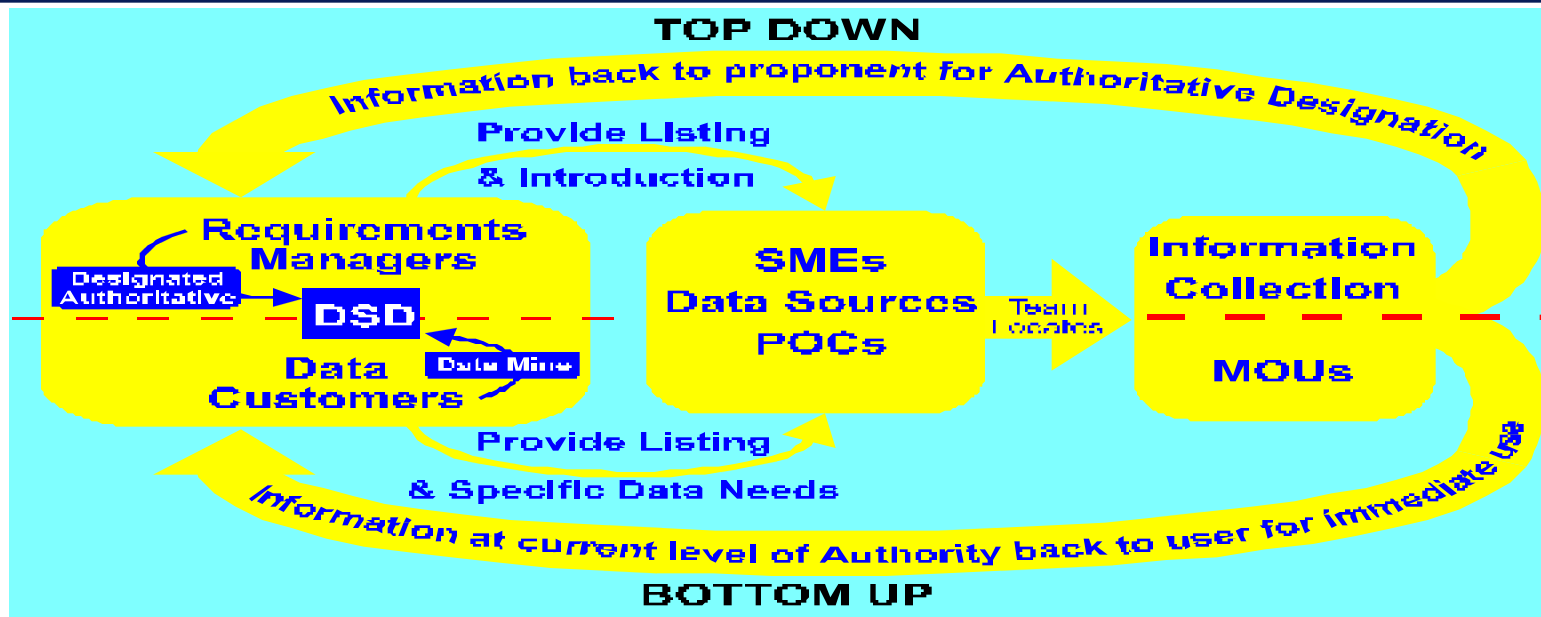


Data Engineering Process ver 0.1.4





Authoritative Data Sources (ADS)



- ADS consists of the:
 - the Producer
 - the Data
 - the Pedigree
- AND designation by an Authority.

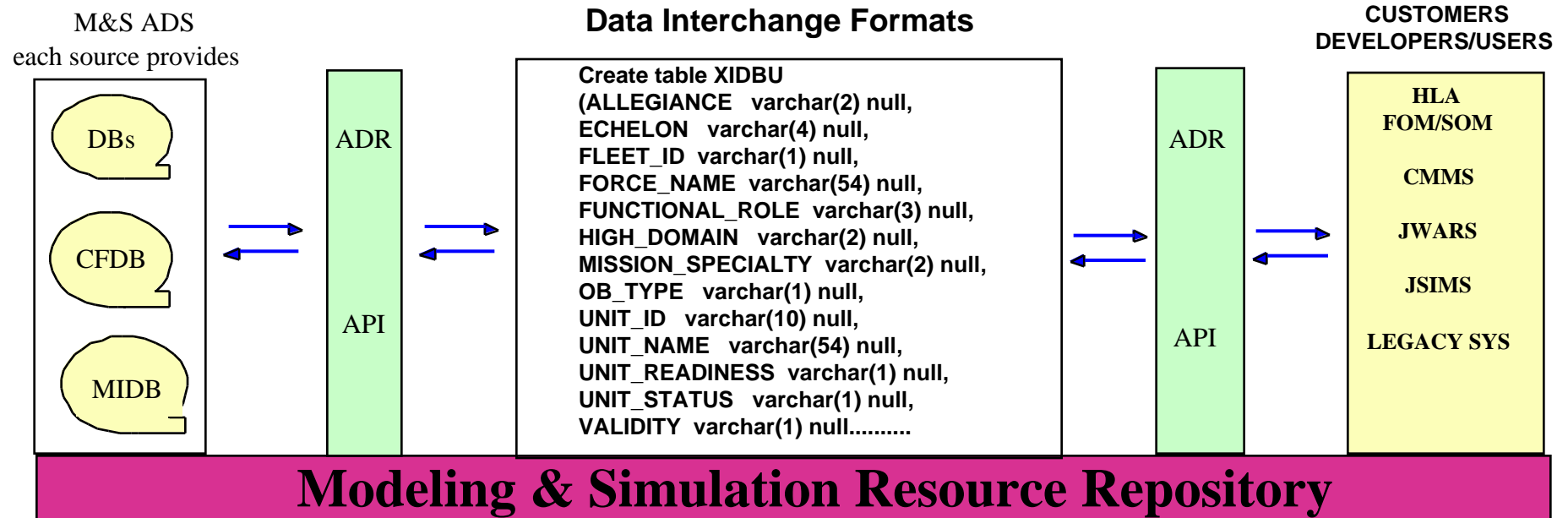
These Order of Battle ADS's:

- JOPES, Service's Personnel & Logistics DBs
- CENTCOM CFDB
- DIA MIDB

will be available in the DMSO demo



Data Interchange Formats (DIF)



DIF is the physical realization of the logical CSS structure and content:

- logical specification
- physical format
- families of interfaces

Order of Battle examples:

- US & IRAQ unit OB descriptions
- Scenario Generation
- OB file formats

will be available in the DMSO demo

used by programmers to exchange data.